

New Patent Claims

1. An arrangement for testing a power output stage, the power
5 output stage having at least three half-bridges which each
comprise a series circuit formed by an upper and a lower
semiconductor switch and to which the operating voltage is
applied, and the junction points of the semiconductor switches
10 of the half-bridges forming outputs which are connected to
windings of an at least three-phase motor, a control device
(20) being provided, which switches respectively one or
respectively simultaneously a plurality of the semiconductor
switches (1 to 6) into the on state according to a
15 predetermined program and in the process tests whether the
respective voltages at the outputs (10, 11, 12) respectively
lie within a predetermined tolerance range for the respective
switching state, characterized in that the feeds to the
windings (13, 14, 15) can be interrupted with the aid of
further switches (31, 32).

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2. The arrangement as claimed in claim 1, characterized in
that the windings (13, 14, 15) of the motor form a star
connection, and in that the further switches (32, 31) are
arranged at the star point and in the feed lines, from the
25 outputs to the windings (13, 14, 15).

3. The arrangement as claimed in either of claims 1 or 2,
characterized in that the further switches (31, 32) are relays.
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4. The arrangement as claimed in one of the preceding claims,
characterized in that provision is made of connections of the
outputs (10, 11, 12) of the half-bridges (7, 8, 9) and of the
operating voltage to inputs of window comparators (20') via
voltage dividers (22, 23, 24, 25).

5. The arrangement as claimed in one of the preceding claims,
characterized in that means are provided which have the effect
that when semiconductor switches (1 to 6) are not in the on
state, the respective output voltage lies within the
5 predetermined average tolerance range.

6. The arrangement as claimed in claim 5, characterized in
that the means are formed by a resistor (26), which is located
between the output (10) of one of the half-bridges (7, 8, 9)
10 and the operating voltage source and generates together with
the voltage divider (23) at the output (10) a voltage in the
average tolerance range.

7. The arrangement as claimed in one of the preceding claims,
15 characterized in that a controllable switch (17) is provided in
the feed line of the operating voltage, a resistor (18) being
connected in parallel with said controllable switch, and in
that the controllable switch (17) can be controlled by the
control device (20).